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|--------------------------|-------------------|--------------|--|
| <b>Interview Summary</b> | Application No.   | Applicant(s) |  |
|                          | 09/297,483        | SEKI ET AL.  |  |
|                          | Examiner          | Art Unit     |  |
|                          | Michael Cleveland | 1762         |  |

All participants (applicant, applicant's representative, PTO personnel):

(1) Michael Cleveland (3) \_\_\_\_\_

(2) Erin Madill (4) \_\_\_\_\_

Date of Interview: 30 August 2002

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No

If Yes, brief description: \_\_\_\_\_

Claim(s) discussed: Proposed 37

Identification of prior art discussed: Jonas, Liu

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

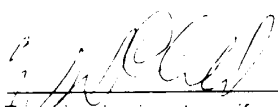
Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed proposed amendments to the claims. Applicant argued that use of the ink-jet composition to deposit a layer separate from the anode distinguishes from the prior art. Further search and consideration would be necessary.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) ☒ It is not necessary for applicant to provide a separate record of the substance of the interview (if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

**Cleveland, Michael**

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**From:** EPMadill@hhlaw.com  
**Sent:** Friday, August 30, 2002 2:38 AM  
**To:** michael.cleveland@uspto.gov  
**Subject:** 09/297,483

Michael,

Here are some proposed amendments to the claims to aid in our discussion of this case tomorrow.

37. (Four Times Amended) A manufacturing process for an organic EL element having a stacked structure including a hole injecting and transporting layer and a light-emitting layer formed within a partitioning member which is divided into individual pixel areas, the method comprising:

forming an anode layer;

forming the partitioning member above [the] a substrate, the partitioning member having openings over at least a portion of the anode layer, the openings corresponding to pixel areas;

forming a hole injecting and transporting layer by independently filling each of the openings with a composition for the hole injecting and transporting layer using an ink-jet recording head, the composition comprising (1) a conductive material containing at least a lubricant, polyethylene dioxythiophene, and polystyrene sulfonic acid, and (2) a solvent; [and]

drying the composition filled in the openings to form the hole injecting and transporting layer; and independently filling each of the openings with a light-emitting layer composition using an ink-jet recording head to form the light-emitting layer;

forming a cathode layer over the light-emitting layer.

Please cancel claim 50 without prejudice.

51. (Amended) The manufacturing process according to claim [50] 37, wherein the lubricant is glycerin.

Please cancel claim 52 without prejudice.

53. (Amended) The organic EL element of claim [52] 37, wherein a film thickness of the hole injecting and transporting layer is 0.1  $\mu\text{m}$  or less.

54. (Amended) The organic EL element of claim [52] 37, wherein a film resistance of the hole injecting and transporting layer is in the range  $0.5 \times 10^9 \text{ O/m}^2$  to  $5 \times 10^9 \text{ O/m}^2$ .

56. (Three Times Amended) A manufacturing process for an organic EL element having a stacked structure including a hole injecting and transporting layer and a light-emitting layer formed within a partitioning member which is divided into individual pixel areas, the method comprising:

forming an anode layer;

forming the partitioning member above [the] a substrate, the partitioning member having openings over

at least a portion of the anode layer, the openings corresponding to pixel areas:

independently filling each of the openings with a composition for the hole injecting and transporting layer using an ink-jet recording head, the composition comprising at least a material for the hole injecting and transporting layer, a lubricant, and a polar solvent; [and]

drying the composition filled in the openings to form the hole injecting and transporting layer; and independently filling each of the openings with a light-emitting layer composition using an ink-jet recording head to form the light-emitting layer;

forming a cathode layer over the light-emitting layer.

58. A composition used for forming a pattern formation of a hole injecting and transporting layer of [an] a stacked organic EL element using an ink-jet recording head, the composition comprising at least a material for a hole injecting and transporting layer, a lubricant, and a polar solvent as a solvent, the composition having a viscosity between 1 to 20 cps and a surface tension of 20 to 70 dyne/cm.

62. (Three Times Amended) A method for manufacturing an electroluminescent display, the method comprising:

(1) manufacturing [an] a stacked EL element, wherein the step of manufacturing the stacked EL element comprises:

forming an anode layer;

forming a partitioning member above [the] a substrate, the partitioning member having openings over at least a portion of the anode layer, the openings corresponding to pixel areas;

independently filling each of the openings with a composition for a hole injecting and transporting layer using an ink-jet recording head, the composition comprising (a) a conductive material containing at least a lubricant, polyethylene dioxythiophene and polystyrene sulfonic acid, and (b) a solvent; [and]

drying the composition filled in the openings to form the hole injecting and transporting layer; and

independently filling each of the openings with a light-emitting layer composition using an ink-jet recording head to form the light-emitting layer;

forming a cathode layer over the light-emitting layer; and

(2) incorporating the [manufactured] stacked EL element into the electroluminescent display.

63. (Three Times Amended) A method for manufacturing an electroluminescent display, the method comprising:

(1) manufacturing [an] a stacked EL element, wherein the step of manufacturing the stacked EL element comprises:

forming an anode layer;

forming a partitioning member above [the] a substrate, the partitioning member having openings over at least a portion of the anode layer, the openings corresponding to pixel areas;

independently filling each of the openings with a composition for a hole injecting and transporting layer using an ink-jet recording head, the composition comprising at least a material for the hole injecting and transporting layer, a lubricant, and a polar solvent; [and]

drying the composition filled in the openings to form the hole injecting and transporting layer; and  
independently filling each of the openings with a light-emitting layer composition using an ink-jet recording head to form the light-emitting layer;

forming a cathode layer over the light-emitting layer; and  
(2) incorporating the [manufactured] stacked EL element into the electroluminescent display.

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